M/V	**CORNELIA**
Voyage No.	**1502**
From	**Duluth, USA**
To	**Windsor, Canada**
Via	**Superior & Huron Lakes**
Month/Year	**December 2015**

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PREAMBLE

Completion of this form is not required for ships having ECDIS as approved navigation system.

This voyage plan has also been compiled in accordance with the STCW code Chapter II, Regulation II/1.6, and the ICS Bridge Procedures guide, Part A, Section 1, Paragraph 2 and Section 2.

The plan shall be prepared by the Officer responsible for the navigation, and approved by the Master prior to commencement of the intended voyage.

In case the port of destination is not known, the plan shall cover minimum 72 hours of the intended voyage prior to departure.

This plan shall be filed on board for a period of minimum 1 year.

Guidance in how to use this passage plan

(1) General info
Basically self explanatory. Intended speed shall be as per charter party or as indicated by the charterers.

(2) Acknowledgement
All officers involved in navigating the vessel, including deck cadets, shall study the plan prior to departure, and sign for acknowledgement and understanding.

(3) Port of departure
This part must always be completed prior to departure.

(4) Port of destination
If the port of destination is known, the general details must be completed. Times of high and low water may be entered later when a more accurate time of arrival is available.

(5a) General waypoint information
Self-explanatory

(5b) Under Keel Clearance (UKC)
Under Keel Clearance has to be included in the Waypoint information and
has to be calculated as follows:
Minimum charted depth + Tide (if applicable) – Vessel's maximum draft = UKC (static)
UKC (static) – expected squat (according squat table) = UKC (dynamic)

Note: Refer to MST "Navigational Manual", Procedure 6.4.2

(6) Charts to be used during the voyage

The numbers of all charts used during the voyage shall be entered, followed by BA for British Admiralty, NZ for New Zeeland, AUS for Australia etc.
Entering of chart numbers shall be done in order of sequence used.

(7) Navigational information between waypoints

These pages shall be completed only when there is significant information between waypoints. If the additional information permits, more waypoints may be entered on one page (e.g. Ocean Passage, Great Circle etc). If more pages then available in this plan are needed, loose pages (form saf 003/2) may be inserted behind page 9. Do not forget to number the loose forms, complete (1) General information and the index page.

(8) Parallel indexing information

Whenever possible, parallel indexing must be used as an aid to navigation, not only to keep the vessel on her intended track, but also for accurate planning of course alterations. Officers must compare the intended course alteration against the actual track in order to become fully familiar with the behavior of the vessel.

(1) GENERAL INFORMATION

Voyage number	**1502**
Port of departure	**Duluth, USA**
Port of destination	**Windsor, Canada**
Intended speed	12 kn.
Total distance	647.0 nm
Total steaming time in hours	53.9 hrs
ETD port of departure	04.12.2015
ETA port of destination	07.12.2015
Number of pages in this voyage plan	13
All charts and navigational publications have been corrected up to	BA NTM number: 38/15 Dated: 17.09.2015

General remarks:
Duluth Z.D. +6 ; IALA Region B
Windsor Z.D. +5 ; IALA Region B

(2) ACKNOWLEDGEMENT

Prepared by: 2nd Mate	**Approved by: Master**
Rank & Name: **2nd Mate Kochetov Andriy**	Rank & Name: **Capt. Janku Ivo**
Signature:	Signature:
Date:	Date:
Acknowledged and understood by:	**Acknowledged and understood by:**
Rank & Name: **3rd Mate Franic Josko.**	Rank & Name: **Ch. Off. Maschik Michael**
Signature:	Signature:
Date:	Date:
Acknowledged and understood by:	**Acknowledged and understood by:**
Rank & Name:	Rank & Name:
Signature:	Signature:
Date:	Date:

(3) PORT OF DEPARTURE INFORMATION

Name of departure berth	Duluth, USA	
VHF Channel Port Control	16	
VHF Channel VTS	13, 16	
VHF Channel Pilots	16	
Times of high and low water		
Standard Port	N/A	
Date		
	Time (h)	Time (h)
High Water		
Low Water		
High Water		
Low Water		
Estimated draft on departure		
Forward		
Aft		
Mean		
Vessel's maximum air draft		
Distance berth to pilot station	N/A	
Estimated time to pilot station	N/A	
Is there change of Pilots	YES ☒ NO ☐	
If yes, where		
If yes, where		
If yes, where		

Remarks:

(4) PORT OF ARRIVAL INFORMATION

Name of arrival berth	Windsor, Canada	
VHF Channel Port Control	16	
VHF Channel VTS	12, 13, 16	
VHF Channel Pilots	16	
Times of high and low water		
Standard Port	N/A	
Date		
	Time	Rise
High Water		
Low Water		
High Water		
Low Water		
Estimated draft on arrival		
Forward		
Aft		
Mean		
Vessel's maximum air draft		
Distance berth to pilot station	N/A	
Estimated time to pilot station	N/A	
Is there change of Pilots	YES ☒	NO ☐
If yes, where		
If yes, where		

Remarks:

(5) GENERAL WAYPOINTS INFORMATION

WAY POINT	Landmark	Latitude	Longitude	To next waypoint		Remaining steaming		Under Keel Clearance (see Guidance)
				Course	Distance	Hours	Miles	
01	Berth	46-44.55 N	092-06.07 W	354	0.1	53.9	647.0	
02	Buoy R N2	46-44.63 N	092-06.08 W	312	0.2	53.8	646.5	
03	Buoy G C1	46-44.76 N	092-06.30 W	010	0.1	53.8	645.9	
04	West Gate Basin	46-44.88 N	092-06.26 W	068	0.6	53.8	645.8	
05	East Gate Basin	46-45.11 N	092-05.44 W	340	1.3	53.8	645.2	
06	Duluth Harbor	46-46.34 N	092-06.07 W	034	0.4	53.7	643.9	
07	Duluth Harbor	46-46.68 N	092-05.74 W	065	0.4	53.6	643.5	
08	Duluth out	46-46.85 N	092-05.20 W	063	62.6	53.6	643.1	
09	Devils I. Lt	47-15.18 N	090-43.68 W	078	107.1	48.4	580.5	
10	Eagle Harbor Lt	47-38.00 N	088-09.54 W	086	12.1	39.5	473.4	
11	Copper Harbor Lt	47-38.88 N	087-51.61 W	105	16.0	38.4	461.3	
12	Manitou Lt	47-34.66 N	087-28.81 W	114	114.2	37.1	445.3	
13	Witefish Point Lt	46-48.12 N	084-55.85 W	148	12.8	27.6	331.0	
14	Ile Parisienne	46-37.31 N	084-45.84 W	139	10.1	26.5	318.2	
15	Buoy G39	46-29.74 N	084-36.14 W	139	3.9	25.7	308.1	
16	Buoy R N30	46-26.82 N	084-32.41 W	074	2.7	25.3	304.2	
17	Buoy R P20	46-27.55 N	084-28.73 W	058	0.5	25.1	301.6	
18	Pointe Louise	46-27.80 N	084-28.17 W	031	0.7	25.1	301.1	
19	Pointe Aux Pins	46-28.44 N	084-27.63 W	053	2.1	25.0	300.4	
20	Big Point	46-29.71 N	084-25.16 W	076	1.7	24.9	298.3	
21	Enter of lock	46-30.11 N	084-22.73 W	087	1.5	24.7	296.5	
22	Out of lock	46-30.19 N	084-20.59 W	109	1.6	24.6	295.0	
23	Buoy R104	46-29.66 N	084-18.38 W	154	2.9	24.5	293.4	
24	Buoy N90	46-27.05 N	084-16.49 W	143	1.5	24.2	290.5	
25	Six Mile Point	46-25.85 N	084-15.17 W	160	2.4	24.1	289.0	
26	Ninemile point	46-23.60 N	084-14.00 W	150	4.3	23.9	286.6	
27	Buoy N60	46-19.89 N	084-10.88 W	111	2.7	23.5	282.3	
28	Stribling Point	46-18.90 N	084-07.22 W	177	2.7	23.3	279.6	
29	Mirre Point	46-16.19 N	084-06.99 W	137	1.0	23.1	276.9	
30	Buoy G21	46-15.45 N	084-06.00 W	196	3.2	23.0	275.8	

31	Buoy R8	46-12.35 N	084-07.26 W	142	2.2	22.7	272.6	
32	Buoy R2	46-10.59 N	084-05.30 W	129	3.7	22.5	270.4	

(5) GENERAL WAYPOINTS INFORMATION

WAY POINT	Landmark	Latitude	Longitude	To next waypoint		Remaining steaming		Under Keel Clearance (see Guidance)
				Course	Distance	Hours	Miles	
33	Buoy R22	46-08.28 N	084-01.16 W	158	0.8	22.2	266.7	
34	Buoy R 18A	46-07.50 N	084-00.70 W	186	3.2	22.2	265.9	
35	Buoy R 14A	46-04.28 N	084-01.20 W	114	6.3	21.9	262.6	
36	Pipe Island Twins	46-01.72 N	083-52.98 W	184	5.2	21.4	256.3	
37	De Tour Reef Lt	45-56.55 N	083-53.49 W	137	48.8	20.9	251.2	
38	Middle I lt	45-20.81 N	083-06.15 W	161	91.0	16.9	202.4	
39	Harbor Reach	43-54.80 N	082-24.63 W	180	49.3	9.3	111.4	
40	Buoy R12	43-05.46 N	082-24.71 W	185	1.9	5.2	62.1	
41	Buoy R8	43-03.58 N	082-24.95 W	180	3.0	5.0	60.2	
42	Point Edward	43-00.55 N	082-24.98 W	207	0.7	4.8	57.1	
43	Fixed Bridge	42-59.89 N	082-25.45 W	189	0.4	4.7	56.4	
44	Buoy R A68	42-59.51 N	082-25.53 W	154	1.0	4.7	56.0	
45	Port Huron	42-58.58 N	082-24.91 W	191	0.7	4.6	55.0	
46	Sarnia	42-57.94 N	082-25.08 W	211	0.9	4.5	54.3	
47	CSX Dock	42-57.19 N	082-25.69 W	223	1.6	4.5	53.5	
48	Sun oil Co. Ltd	42-56.03 N	082-27.16 W	197	1.7	4.3	51.9	
49	Marysville	42-54.39 N	082-27.83 W	201	1.1	4.2	50.2	
50	Stag Island	42-53.34 N	082-28.37 W	179	1.0	4.1	49.0	
51	Buoy R56	42-52.34 N	082-28.35 W	173	1.1	4.0	48.0	
52	Buoy G55	42-51.24 N	082-28.17 W	191	0.7	3.9	46.9	
53	Buoy R A54	42-50.57 N	082-28.34 W	205	1.1	3.9	46.2	
54	St Clair	42-49.58 N	082-28.97 W	178	1.4	3.8	45.2	
55	Courtright lt	42-48.21 N	082-28.90 W	157	1.1	3.6	43.8	
56	Buoy R A46	42-47.20 N	082-28.32 W	171	1.5	3.6	42.7	
57	Buoy R A44	42-45.75 N	082-28.02 W	204	1.9	3.4	41.2	
58	Buoy R A42/2	42-44.00 N	082-29.05 W	180	0.6	3.3	39.3	
59	Marine City	42-43.45 N	082-29.05 W	203	1.5	3.2	38.8	
60	Buoy R40	42-42.06 N	082-29.86 W	195	2.2	3.1	37.3	

61	Buoy G37	42-39.90 N	082-30.66 W	178	1.2	2.9	35.0	
62	Baby Point	42-38.70 N	082-30.60 W	191	1.9	2.8	33.8	
63	Walpole Island	42-36.86 N	082-31.08 W	210	0.5	2.7	31.9	
64	Buoy R A30	42-36.40 N	082-31.45 W	230	1.3	2.6	31.4	

(5) GENERAL WAYPOINTS INFORMATION

WAY POINT	Landmark	Latitude	Longitude	To next waypoint		Remaining steaming		Under Keel Clearance (see Guidance)
				Course	Distance	Hours	Miles	
65	Buoy G27	42-35.58 N	082-32.77 W	216	0.7	2.5	30.1	
66	Buoy R A24	42-35.00 N	082-33.35 W	227	1.4	2.5	29.4	
67	Buoy R A22	42-34.05 N	082-34.71 W	203	1.1	2.3	28.0	
68	Buoy R A14	42-33.08 N	082-35.28 W	244	5.3	2.2	27.0	
69	Buoy C31	42-30.80 N	082-41.68 W	221	3.9	1.8	21.7	
70	Buoy R24	42-27.86 N	082-45.17 W	228	8.9	1.5	17.8	
71	Buoy R2	42-21.90 N	082-54.02 W	246	2.0	0.7	8.9	
72	Buoy G113	42-21.07 N	082-56.48 W	225	1.3	0.6	6.9	
73	Fleming Channel	42-20.17 N	082-57.70 W	253	1.1	0.5	5.7	
74	Belle Isle	42-19.85 N	082-59.15 W	264	1.4	0.4	4.5	
75	Windsor	42-19.70 N	083-01.05 W	252	2.1	0.3	3.1	
76	Detroit	42-19.05 N	083-03.80 W	236	0.7	0.1	1.0	
77	Detroit	42-18.65 N	083-04.60 W	208	1.1	0.1	1.1	
78	Berth	42-17.71 N	083-05.27 W					

(6) CHARTS TO BE USED DURING THE VOYAGE

01	USA 14975	9	USA 14862	17		25	
02	USA 14966	10	USA 14865	18		26	
03	USA 14961	11	USA 14852	19		27	
04	USA 14962	12	USA 14850	20		28	
05	USA 14884	13	USA 14848	21		29	
06	USA 14883	14		22		30	
07	USA 14882	15		23		31	
08	USA 14860	16		24		32	

(7) NAVIGATIONAL INFORMATION between waypoint # berth and waypoint # 35					
Course	as per item 5	Distance	as per item 5	Speed	variable
Minimum water dept/Under Keel Clearance (**UKC**)		See Charts USA 14975			
Squat calculations		As per Squat table posted on the bridge			
Engine status		UMS			
Point of no return when approaching critical areas		See charts			
Areas for emergency anchoring		See charts			
Position fixing method		P.I., RAFIX, GPS, Terrestrial			
Methods established for position verification of floating objects		Radar and Visual			
VHF channels to be monitored		CH 13, 16/70			
Any special environmental rules and regulations for this voyage		MARPOL special North America area, ECA			
Bridge Resource Management implemented and practiced		IN ACC. With ISM CODE and NAVIGATIONAL MANUAL, NAVIGATIONAL & MASTER'S ORDER, NIGHT ORDER BOOK			
Sailing directions		CHS CEN300E; CHS CEN305E; CHS CEN306E			
List of lights		CHS List of Lights, Buoys & Fog Signals-Inland Waters;			
Other navigational publications		BA ALRS NP 281 (2); BA NP 282; BA NP 283 (2); BA NP 285; Guide to Port Entry; CHS Radio Aids to Marine Navigation-Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg and Arctic; The Seaway Handbook-2015 edition; Collision Regulations; US Coast Pilot 6; USCG Vol. 7; US CG515; USNAVRULES; NOAA Chart Catalog			

SECA/ECA area (Sulphur Emission Controlled Area/Emission Controlled Area)	
Change-over time from HFO to LSFO prior entering a SECA area (vessel must run on pure LSFO when entering the area).	N/A
Way point for starting the change-over procedure (to be inserted in GPS with alarm, on radar and in the chart).	N/A
The Officer on Watch (OOW) to inform the Duty Engineer to start the change-over procedure when arriving the way point.	N/A
Date and time when entering the SECA area. This must also be recorded in the logbooks.	N/A

Remarks: Lake Superior – VHF Ch 13, 16
USCG Sault Ste Marie (St. Mary's River) – VHF Ch 12, 13, 16

(7) NAVIGATIONAL INFORMATION between waypoint # 35 and waypoint # berth

Course	As per item 5	Distance	As per item 5	Speed	variable

Minimum water dept/Under Keel Clearance (**UKC**)	See Charts USA 14848
Squat calculations	As per Squat table posted on the bridge
Engine status	UMS
Point of no return when approaching critical areas	See charts
Areas for emergency anchoring	See charts
Position fixing method	P.I., RAFIX, GPS, Terrestrial
Methods established for position verification of floating objects	Radar and Visual
VHF channels to be monitored	CH 13, 16/70
Any special environmental rules and regulations for this voyage	MARPOL special North America area, ECA
Bridge Resource Management implemented and practiced	IN ACC. With ISM CODE and NAVIGATIONAL MANUAL, NAVIGATIONAL & MASTER'S ORDER, NIGHT ORDER BOOK
Sailing directions	CHS CEN300E; CHS CEN304E; CHS CEN307E
List of lights	CHS List of Lights, Buoys & Fog Signals-Inland Waters;
Other navigational publications	BA ALRS NP 281 (2); BA NP 282; BA NP 283 (2); BA NP 285; Guide to Port Entry; CHS Radio Aids to Marine Navigation-Atlantic, St. Lawrence, Great Lakes, Lake Winnipeg and Arctic; The Seaway Handbook-2015 edition; Collision Regulations; US Coast Pilot 6; USCG Vol. 7; US CG515; USNAVRULES; NOAA Chart Catalog

SECA/ECA area (Sulphur Emission Controlled Area/Emission Controlled Area)

Change-over time from HFO to LSFO prior entering a SECA area (vessel must run on pure LSFO when entering the area).	N/A
Way point for starting the change-over procedure (to be inserted in GPS with alarm, on radar and in the chart).	N/A
The Officer on Watch (OOW) to inform the Duty Engineer to start the change-over procedure when arriving the way point.	N/A

Date and time when entering the SECA area. This must also be recorded in the logbooks.	N/A
Remarks: Sarnia VTS Sector 1 – VHF Ch 11, 16 Sarnia VTS Sector 2 – VHF Ch 12, 16	

(8) PARALLEL INDEXING INFORMATION ***between waypoint # berth and waypoint # 35***	
Target	*For details see appropriate nautical charts*
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Prevailing current	
Direction	
Velocity	

Prevailing weather As per weather forecast receiving during voyage as per 283 (2) and via BON VOYAGE; Inmarsat-C; Navtex frequency 518 KHz station – [P] Thunder Bay, and Applied Weather Technology.
Remarks **Speed, courses & minimum distances between Berth & Pilot Station as per Master / Pilot advices**

(8) PARALLEL INDEXING INFORMATION ***between waypoint # 35 and waypoint # berth***	
Target	*For details see appropriate nautical charts*
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Target	
Minimum distance	
Prevailing current	
Direction	

Velocity	
Prevailing weather: As per weather forecast receiving during voyage as per 283 (2) and via BON VOYAGE; Inmarsat-C; Navtex frequency 518 KHz station – [H] Wiarton, and Applied Weather Technology.	
Remarks **Speed, courses & minimum distances between Berth & Pilot Station as per Master / Pilot advices**	